

Title of work: The Role of Furosemide on Intrinsic Optical Signals in hippocampal slices

Objective: Learn how furosemide affects the internal optical signals in the rat hippocampus.

Method: Measurement of IOS on slices of hippocampus in electro DG. detection IOS changes in the application of furosemide.

Results: Internal optical signals are dependent on the activation of tissues and exhibit regional differences in hippocampal different layers. The concentration furosemide increases optical response of a tissue.

Conclusion: The physiological processes in the nervous tissue are associated with changes in their optical properties. Furosemide in our work increased intrinsic optical signals. The change was more pronounced in dendritic compared with CA3 pyramidal layer.

Keywords: hippocampus, an inner optical signals, furosemide, neuroglia, light transmission